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मानक

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IS 10062 (1991): Proforma for analysis of unit rate of quarrying rock by mechanical means [WRD 23: Measurement and Cost Analysis of Works For River Valley Projects]



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“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक
यांत्रिक साधनों द्वारा उत्खनन चट्टान की
इकाई दर के लिए विश्लेषण प्रपत्र
(पहला पुनरीक्षण)

Indian Standard

PROFORMA FOR ANALYSIS OF UNIT RATE OF
QUARRYING ROCK BY MECHANICAL MEANS
(*First Revision*)

UDC 69'003'12 : 622'271'2

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Cost Analysis and Cost Estimates Sectional Committee had been approved by the River Valley Division Council.

Excavation of foundations in rock for various structures, such as dams and power houses, will have to be done generally by mechanical means. Similarly rubble and aggregate are used in building industry, construction of dams and other structures. Building of roads and many other purposes have to be quarried by mechanised methods. The mode of excavation and quarrying depends on site conditions, type and use of machinery and equipment.

The cost of quarrying rock, therefore, varies from project to project. The unit rate of quarrying rock is made up of several components, such as cost of labour, drilling, explosives, mucking, other ancillary items, transport and stacking. The costs of some of the above components in turn depend on the machinery and equipment used on the job. A uniform proforma for the analysis of unit rate for quarrying rock will be useful in comparing the rates.

This standard was first published in 1981. The revision of this standard has been taken up in the light of the experience gained during the last nine years in the use of this standard. This standard has been revised and additional items required have been added.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***PROFORMA FOR ANALYSIS OF UNIT RATE OF QUARRYING ROCK BY MECHANICAL MEANS***(First Revision)***1 SCOPE**

1.1 This standard lays down proforma for analysis of unit rate of quarrying rock by mechanical means.

2 PROFORMA FOR ANALYSIS OF UNIT RATE OF QUARRYING ROCK BY MECHANICAL MEANS

2.1 The proforma recommended for use in analysis of unit rate of quarrying rock by mechanical means is as given in Table 1.

Table 1 Proforma for Analysis of Unit Rate of Quarrying Rock by Mechanical Means

SI No	Item	Unit	Quantity	Rate	Amount	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	i) Royalty fees for quarrying					
	ii) Removal of overburden, rejected or unuseable material					
	iii) Drilling					
	a) Machinery and equipment excluding air					
	b) Compressed air					
	c) Drill bits and drilling accessories					
	d) Other material					
	e) Labour					
	iv) Blasting					
	a) Machinery and equipment					
	b) Material					
	c) Labour					
	v) Transport to stackyard and stacking					
	a) Machinery and equipment					
	b) Material					
	c) Labour					
	vi) Quarry roads					
	vii) Dewatering arrangement					
	viii) Ancillaries and incidental					
	a) Provision (excluding operation and maintenance) of the following:					
	1) Transportation of labour					
	2) Labour and staff quarters					

Table 1 (Concluded)

SI No.	Item	Unit	Quantity	Rate	Amount	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	3) Service and haul roads					
	4) Electric power system					
	5) Water supply system					
	6) Sanitary system					
	7) Surface drainage					
	8) Safety measures including fire fighting arrangements					
	9) Other amenities					
	b) Maintenance/operation of items mentioned above					
	c) Supervisory works establishment					
ix)	Contingencies					
x)	Quality control, including laboratory charges					
xi)	Overhead (excluding profit). This shall include establishment, office stationery, general tools and plant, staff cars and their running and maintenance, insurance, workman's compensations, telephones and telecommunication facilities, security arrangements, interest liabilities on borrowings from the owner and bank guarantee charges, etc					
	Total — all in rate					
	NOTES					
1	The above items may be expressed on pro-rata basis.					
2	All items mentioned above shall include depreciation, erection, operation repairs and maintenance and dismantling of machinery where used. All items of labour mentioned above shall include indirect statutory and other benefits payable to the labour.					

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